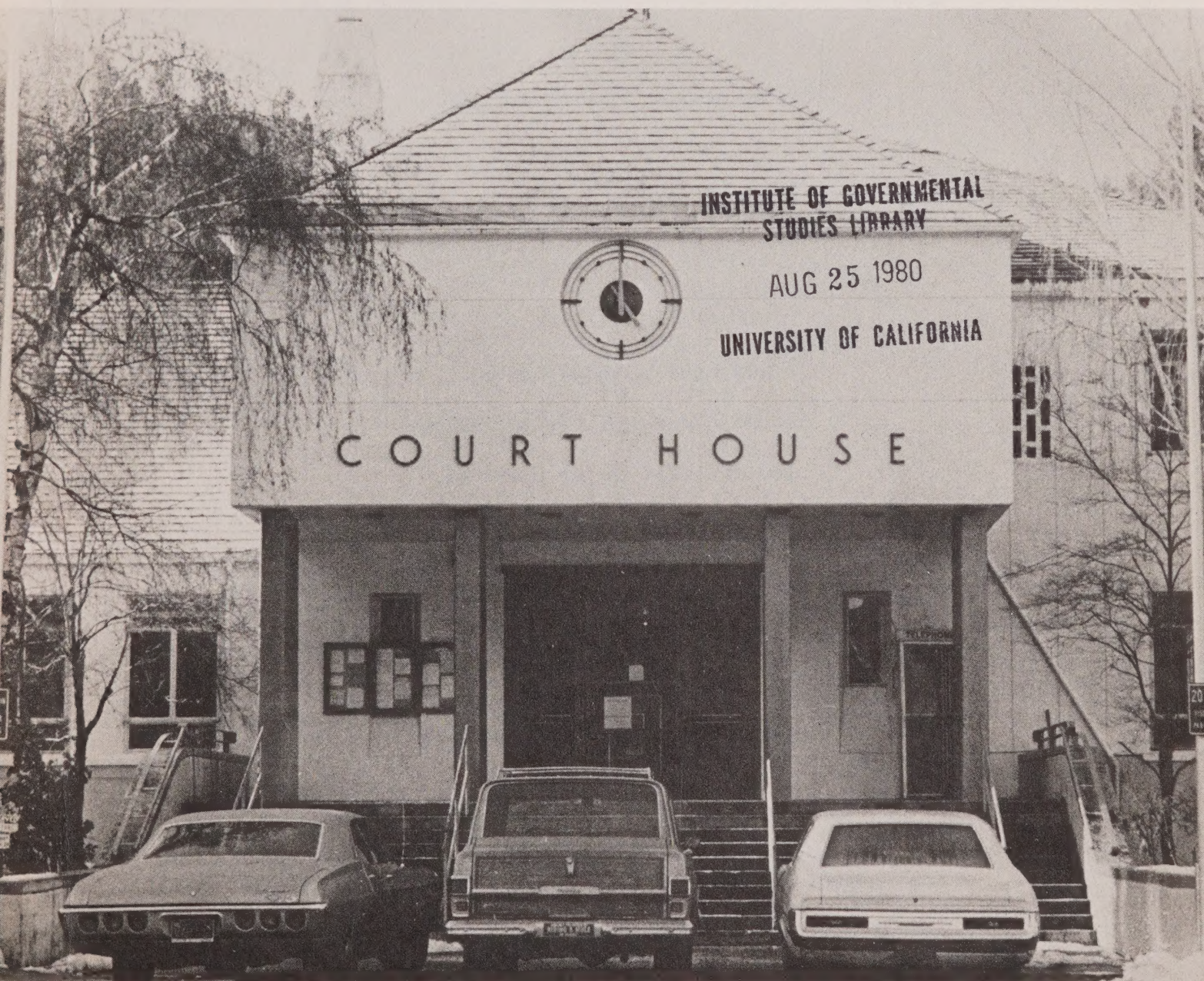


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GROWTH IMPACTS ON
GOVERNMENT EXPENDITURES AND REVENUES
VERDI, CALIFORNIA SIERRA COUNTY



Division of Agricultural Sciences
UNIVERSITY OF CALIFORNIA

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GROWTH IMPACTS ON GOVERNMENT EXPENDITURES AND REVENUES

IN

VERDI, CALIFORNIA, SIERRA COUNTY

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May 1980

The authors would like to thank the Planning Commission, and the Board of Supervisors of Sierra County for partial funding for this study.

Cover photo courtesy of The Mountain Messenger, Downieville, CA.

In addition, the authors would like to thank the many public officials and private individuals for their cooperation and information.

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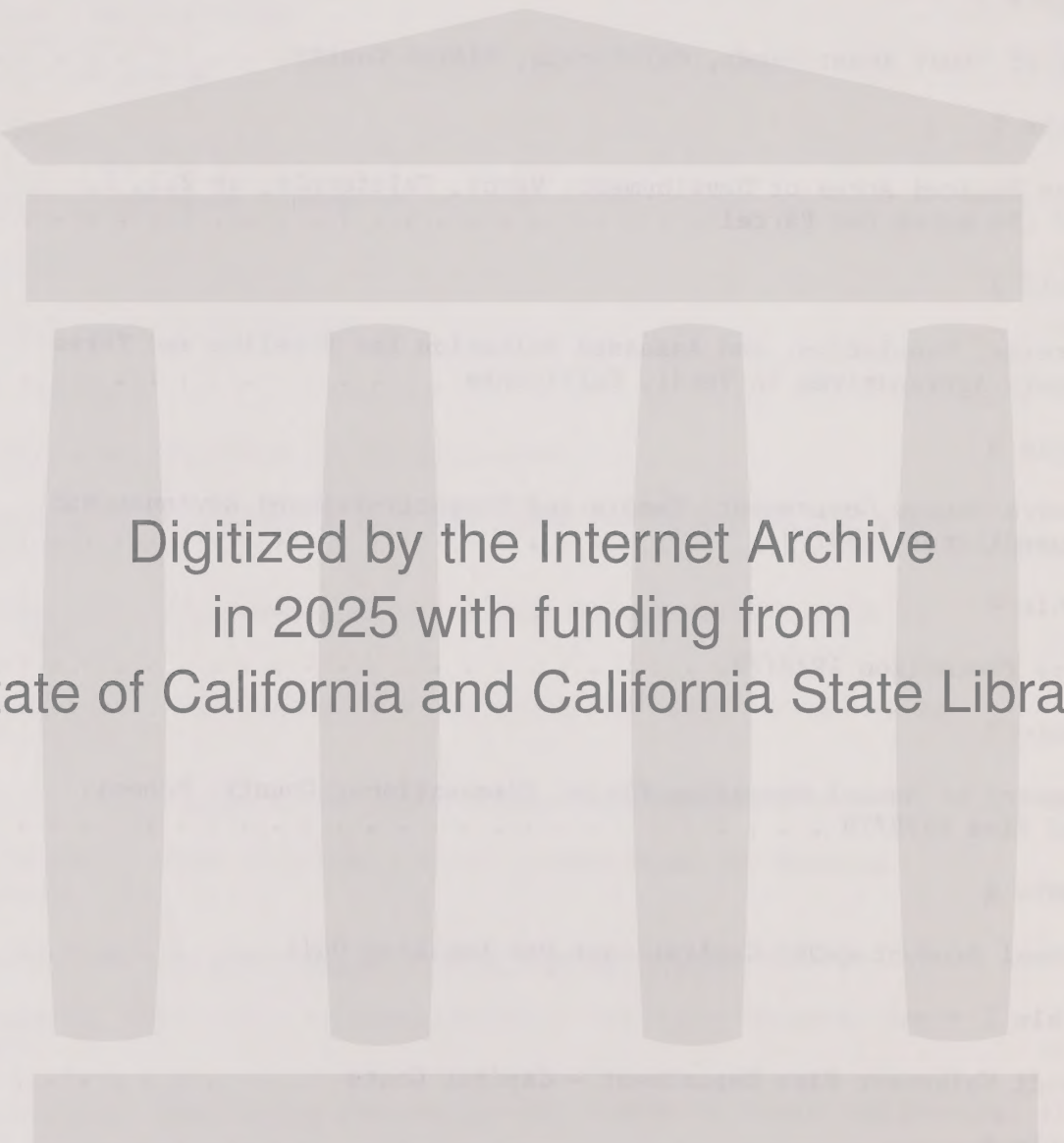
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SUMMARY - SIERRA COUNTY

This study estimates the cost and revenue impacts to local governments of three residential growth alternatives for a 500 acre area in Sierra County, Verdi, California.

The analysis of the county's southeast border community indicates that costs tend to exceed revenues for both operational and capital transactions. A comparison of the three alternatives (Figure 1) indicates that:

- the greater the population density, the higher the government costs, both in total and on a per-person and per-acre basis;
- the current land use mix of people and open space generates a net revenue to the county of \$32 per person.

Development creates excess costs because:

- people-related costs exceed people-related revenues; while
- property (assessed value) related revenues exceed property-related costs;
- thus open land pays for people-related services;
- with the advent of Proposition 13 and the Gann Initiative, the ability to generate new revenues is in question.

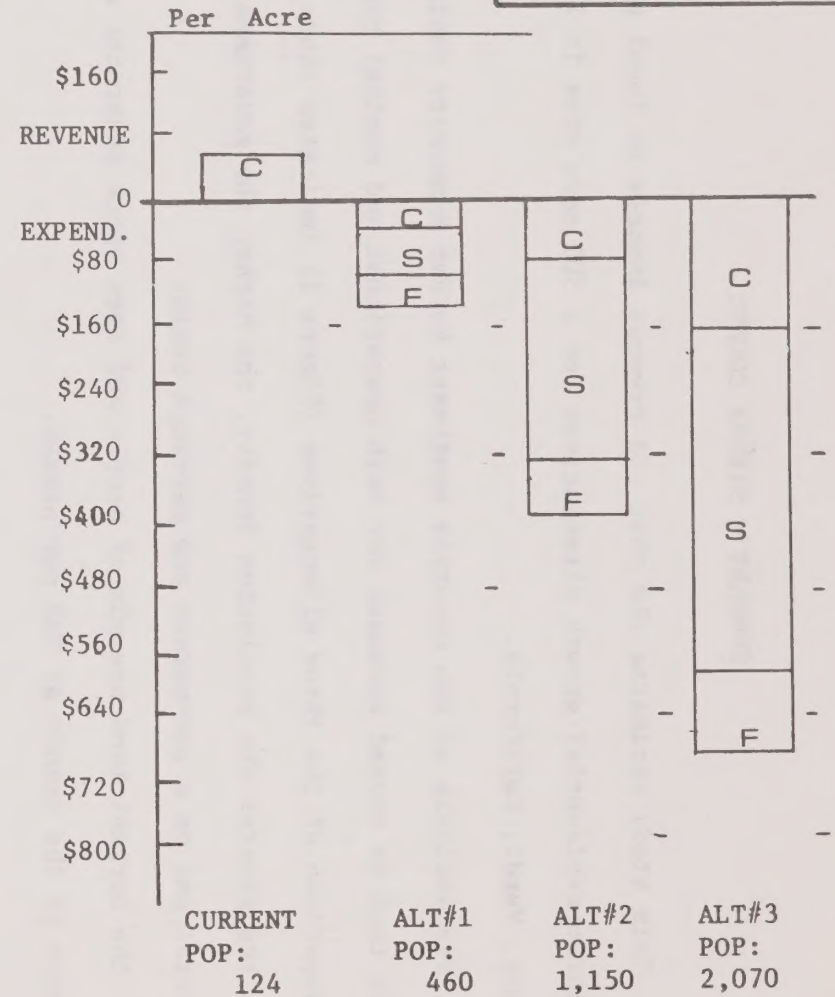
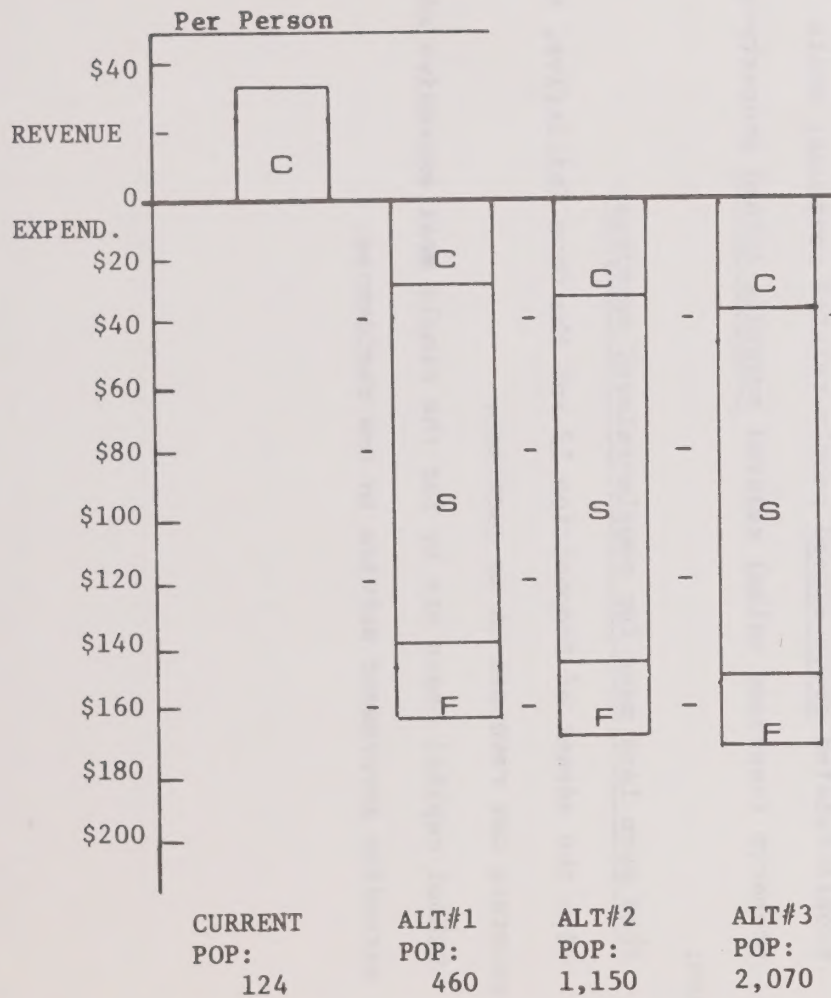
School capital costs are by far the single most expensive added cost for extending government service to new residences.

FIGURE 1

VERDI, CALIFORNIA - SIERRA COUNTY

Government Costs less Revenues (Net) : By Agency
For Current Status plus 3 Growth Alternatives

County Government = C
School District = S
Fire Protection = F



ASSUMPTIONS

The following are the major assumptions for this analysis.

1. The level of service for new residences in Verdi will be at the same level for the existing residences (throughout the report)
2. Fire protection will be provided by Nevada (Page 6 and 18)
3. School (Page 6 and 17) and County Government Services will be provided by California (Page 6).
4. Density of development on 500 Acres is tested at 1) 2.5 2) 1 3) .56 Acres per dwelling unit (d.u.) (Page 7)
5. Population is 2.3 per d.u.; K-8 is .346 per d.u. and 9-12 is .154 per d.u. (Page 7)
6. Structure value for all 3 alternatives is \$61,200 (Page 8)
7. Assessed Value (A/V) is at 70 percent of Full Market Value - Prop 13 Assessment Standard (Page 8)
8. Sewer and Water costs are carried by the developer (Page 12)
9. No commercial land use was included in this study (only residential) (Page 14)
10. Average Cost/Revenue Methodology was used throughout (Page 20)
11. Existing road costs will be met by existing revenues
12. School operating costs are paid for by State revenues (Page 17)
13. Donations to the Verdi Volunteer Fire Department from Sierra County's Service Area #4 will increase as Verdi population increases (Page 18)
14. Donations from households in Verdi to Verdi Volunteer Fire Dept. will increase with population (Page 19)
15. Residential development build out will occur in a 2 to 5 year period (Page 20)
16. All Capital improvements will be calculated at 8 percent interest over a 20 year period (Page 20)
17. New county roads will include a 2.7 mile collector; not individual roads serving each parcel (Appendix E) (Page 45)
18. Jail facilities assume the same Cell to Population ratio currently experienced in Sierra County.
19. County government asset per person equals \$300. (Page 23)
20. A new school facility will be needed in Verdi, California (Page 17)
21. If new students commuted to Nevada Schools, the capital costs would occur for Nevada (presumably paid for by California) (Page 23)

Purpose

This study evaluates potential residential development in Verdi, California, and the effect of government costs and revenues to Sierra County, the school district, and the fire district. For comparison, this study also estimates the fiscal impact of the current land use. It does not attempt to estimate the projected growth for the areas housing stock, the effects to the private sector business, or the effects to state and federal costs and revenues.

Study Area - Verdi, California

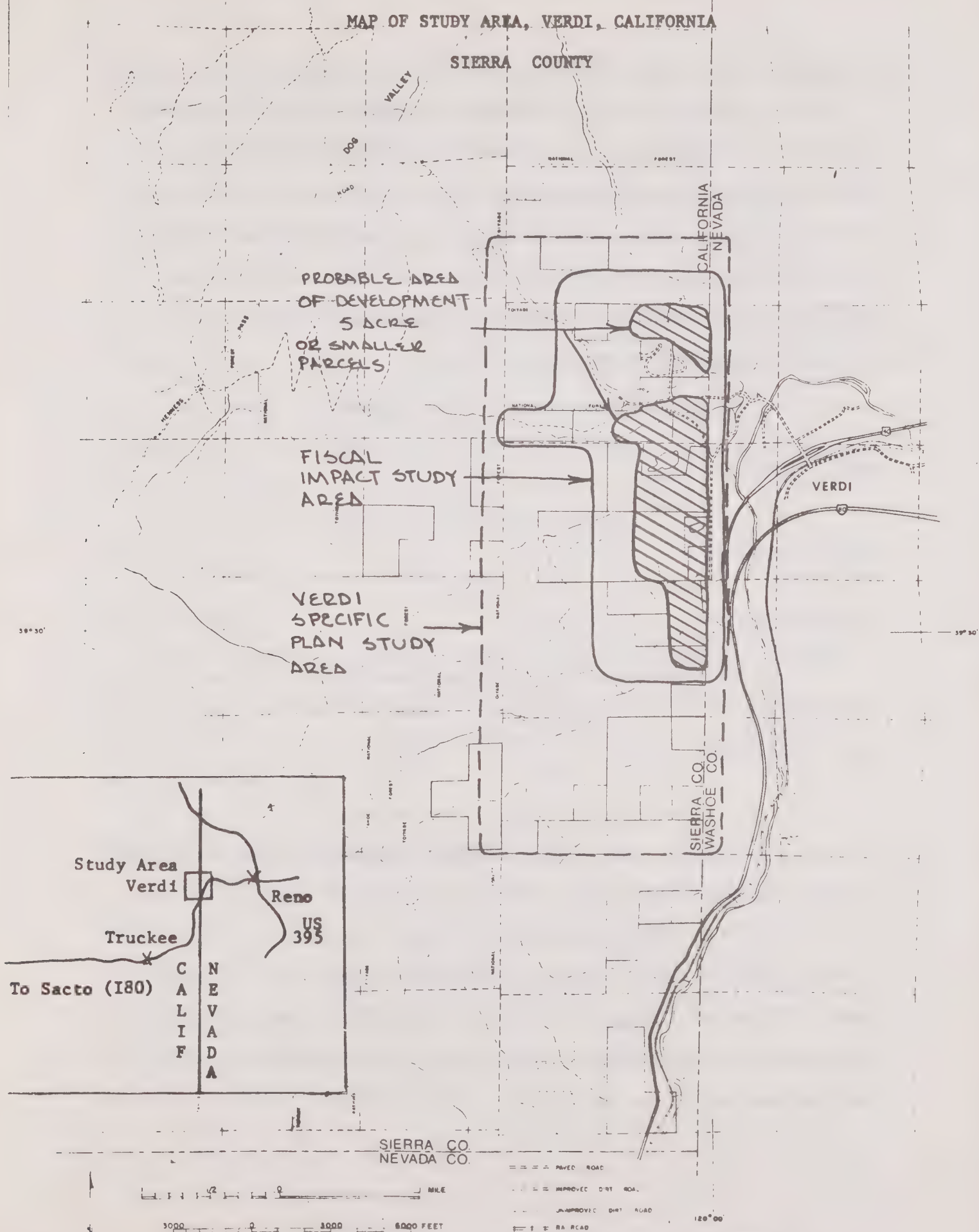
The study area, located in the southeast corner of Sierra County, is of particular interest because of its rapid growth and its close proximity to Reno and Sparks, Nevada (10 minutes). Verdi, California, is a wooded area with moderate to steep sloping terrain. While approximately 3,350 acres are privately held, it is the estimated 500 acres adjacent to Verdi, Nevada, that will be the subject area for this fiscal impact assessment.

Figure 2 indicates the study area's proximity to Verdi, Nevada, Interstate 80, the California/Nevada border, and the Reno/Sparks area.

FIGURE 2

MAP OF STUDY AREA, VERDI, CALIFORNIA

SIERRA COUNTY



VERDI SPECIFIC AREA PLAN

Background: Base Year March 1979

Verdi, California, has an estimated 124 people living in 54 dwelling units (D.U.) on 126 acres. The assessed valuation (A/V) for the study area is currently for land broken into three categories. A/V for land with houses is \$876,000 - 275,500 for land and 600,500 for improvements. The A/V for vacant land is \$745,000 for a total A/V of \$1,621,000 for the study area. Verdi can be compared with the rest of Sierra County, or with Verdi, Nevada/California combined.

	Dwelling Units	Population	Acres
Verdi, California	54	124	3,350
<hr/>			
Verdi, California, and Nevada	820	1,800	6,260
California portion in %	6.6%	6.9%	54%
<hr/>			
Sierra County	1,200	3,020	613,760
Verdi, California in %	4.5%	4.1%	.5%
<hr/>			

It is noteworthy that Verdi, California, represents about 4.1 percent of Sierra County's population. The California side of Verdi represents 6.9 percent of the total California/Nevada Verdi population.

The three government agencies are included in the study. The fire district is assumed to serve both Verdi, California and Verdi, Nevada. School and county services will be provided for the California portion of Verdi by agencies in Sierra County.

Future Growth and Cost-Revenue Projections

The rest of this study is in three parts. Part one projects three growth alternatives on 500 acres with an average lot size of 1) 2.5 acres; 2) 1.0 acres, and 3) .56 acres. It also estimates future student and total populations and the assessed valuations for land and improvements. Part two estimates current annual government costs and revenues for county, school, and fire services. It also calculates capital costs on government operations affected by the growth projections. Part three applies the growth alternatives (Part one) to the estimated government operational and capital costs and revenues (Part two). The results are then displayed and analyzed by growth alternative and by government agency.

PART ONE

Zone Density

The three growth projections on 500 acres will assume a residential density of 1) 2.5 acres per D.U. for a total of 200 dwellings; 2) 1 acre per D.U. for a total of 500 dwellings; and 3) .56 acres per D.U. for a total of 900 dwellings.

Adult and Student Population Per Dwelling Unit

The 1975 census determined that there are 2.3 people per D.U. for Sierra County. This also coincided with the estimates in Verdi. The student population (K-8) represented approximately .346 students per D.U. and the high school population (9-12) represented approximately .154 students per D.U. These estimates of student and total population per D.U. were used for our analysis of the study area.

Home and Land Value

The value of new houses on the 500 acre development is based on interviews with local builders and values of recently assessed property in the area.

It was determined that the value of the structure is approximately \$61,200. This number is based on an average value of the square footage of houses in the area. An analysis of the county assessment roll in Verdi indicated that houses had an average of 1,530 square feet. (Only houses over 1000 square feet were used in the sample). The value for residential structures is currently about \$40 per sq. ft. Thus, 1,530 sq. ft. times \$40 per sq. ft. equals \$61,200. The survey indicated that the D.U. value per square foot was the same for both large and small lots.

Alternative	1	2	3
Lot size in acres	2.5 acres	1.0 acres	.56 acres
Land value <u>per acre</u>	\$10,500	\$15,500	\$15,500
Land value <u>per parcel</u>	\$26,250	\$15,500	\$ 8,500
Improvement value per parcel ^{1/}	\$25,000	\$25,000	\$25,000
Parcel value without houses (Total)	\$51,250	\$40,500	\$33,500
House value	\$61,200	\$61,200	\$61,200
House, land plus improvements	\$112,450	\$101,700	\$94,700

The assessed value of property is only 70 percent of its sale value.^{2/} This is caused by inflation and the assessment procedure in the California Constitution Article 13 A, Section 2b (Proposition 13), which states, "the fair market value base may reflect from year to year the inflationary rate not to exceed two percent (2%) for any given year..." By assuming an 8 per-

^{1/} 10,000 parcels ability to hold residential building (zoning)
15,000 improvement, water, sewer, site grading and misc. expense
25,000

^{2/} See Appendix D for sale value to assessed value ratio table.

cent inflation rate to home values minus the 2 percent increase in assessments allowed by Proposition 13, we net an annual decrease in constant dollar terms in assessed valuation of 6 percent per year compared to residential sale values. For example, at the time of sale the assessed value is equal to the market value. However, after one year inflation has increased the sale value by 8 percent while Proposition 13 allows the assessed value to increase by only 2 percent. Thus, \$1,000 worth of property is valued at 94 percent^{3/} or \$940 at the end of one year in constant dollar terms. If property is held by one owner for 19 years, the assessed value would be 31 percent of the then sale value. For the last ten years residential property value has been rising at approximately twice the rate of the CPI. This means that while the CPI has been rising at an average annual rate of 8 percent, residential values have been rising at 16 percent. However, historically real estate values have held relatively constant to the rise in the CPI. This study takes the historic perspective and assumes that real estate values will rise at the same rate as other costs (and revenues).

Based on interviews with several county assessors, it was determined that residential houses are sold on the average of every five to seven years. Using a random distribution function with a turnover rate of five and seven years averaged together yielded an assessed value worth 70 percent of the sale value.* Table 1 then displays the sale value per parcel, the A/V per parcel, and the total A/V estimated for each of the three alternatives. Table 2 displays the acreage, parcel size, population, and A/V of the baseline and the three alternatives.

^{3/}100% less 8 percent inflation plus 2 percent assessment increase equals 94 percent.

*See Appendix D.

TABLE 1

FIVE HUNDRED ACRES OF DEVELOPMENT - VERDI, CALIFORNIA

At 2.5, 1, and .56 Acres Per Parcel

Description	Alternative 1		Alternative 2		Alternative 3	
	Per Parcel	Total	Per Parcel	Total	Per Parcel	Total
Parcel size (acres)	2.5	200 ^{2/}	1.0	500	.56	900
Sale value	\$ 112,450		101,700		94,700	
Times 25%	\$ 28,110		25,425		23,675	
Times 70% = A/V ^{1/}	19,680	3,936,000	17,800	8,900,000	16,570	14,913,000

^{1/}See Appendix D for sale value to A/V ratio.^{2/}Number of parcels

TABLE 2

ACREAGE, POPULATION, AND ASSESSED VALUATION FOR
BASELINE AND THREE GROWTH ALTERNATIVES IN VERDI, CALIFORNIA

Description	Baseline (Developed only)	Alt. 1	Alt. 2	Alt. 3
Number of acres	126	500	500	500
Number of parcels developed	54	200	500	900
Parcel size in acres	2.33	2.5	1.0	.56
Population @ 2.3 per parcel	124	460	1,150	2,070
Students k-8 @ .346	19	69	173	311
9-12 @ .154	8	41	77	139
Total students	27	100	250	450
A/V per parcel (and improvement)	\$ 16,222	\$ 19,680	\$ 17,800	\$ 16,570
Total all parcels (x1000)	876	3,936	8,900	14,913

PART TWO

Government Costs and Revenues: Operational (Annual) and Capital

This section calculates governments annual costs and revenues for ongoing government operations and for capital costs and revenues associated with new development. The government agencies covered in this analysis are the Sierra County Government, the Sierra-Plumas Unified School District, and the Verdi Volunteer Fire District. Noticeably missing from our study is an analysis of water and waste water capital and operating costs and revenues. Water and waste water are currently being developed and maintained on an individual, parcel-by-parcel basis. In two of the three alternatives with low density development (2.5 and 1 acre parcels) it is assumed that each parcel will have its own well and septic system. In the third, high density development alternative (.56 acres per parcel) a centralized system for water and waste water would be needed.

A centralized water system would have an advantage over individual wells because it would have an added reserve capacity for fire hydrants; and a central access point for water quality testing. The disadvantage is that a formal government agency would be needed to administer and guarantee its operation, maintenance, and eventual replacement.

A sewage system with a 500,000 gallon per day capacity would be necessary for a development of 900 units (500 acres at .56 acres per unit). The cost of installing such a system and depositing a performance bond to guarantee adequate treatment into the future would most likely equal the cost of individual septic systems. A waste water system would have to be administered by a government agency to ensure adequate protection to the environment of the Truckee River and to the ground water. Additional information

about water and waste water capacity and constraints is discussed in the report titled "Hydrogeologic Conditions at Verdi, Nevada," by Kenneth Schmidt and is available from the Sierra County Planning Department.

At this time there is no plan for Nevada to extend regional sewage facilities to the Verdi area. A sewage facility built for residential development would need to be able to operate on a continued basis into the future.

Operational Costs and Revenues

Sierra County Government

All revenues and expenditures for the Sierra County Government are either annually related to ongoing operations or to growth or replacement related improvements of roads and facilities. With this in mind, the county's financial transactions are separated into seven use categories: 1) people; 2) property; 3) commercial; 4) agriculture; 5) federal lands; 6) new construction; and 7) roads. (See Appendix B for revenue and expenditure allocation by category.) The county's revenues are derived from local sources in the form of tax assessments and service charges and from non-local sources in the form of grants and aid to specific programs. Expenditures, on the other hand, go for law enforcement, public works (roads and solid waste), health and welfare, and general government (administration, financial auditor, planning, elections, and miscellaneous services).

1) People-related revenues derived from local sources are vehicle and court fines and charges for miscellaneous services. Sources from other governments are derived from state and federal aid for welfare, health, police subvention, and portions of revenue sharing. People-

related expenditures include a portion of general government, court and sheriff costs, and all of correction, welfare, health and education costs. All of people-related fiscal transactions are viewed as annual transactions with no adjustments for capital expenditures or revenues. However, based on the nature of the housing and community in Verdi, California, it was decided that welfare costs (and the corresponding revenues) would not be included in the cost-revenue balance.

2) Property-related revenues come primarily from property tax revenue (78 percent), while the remainder is attributed to revenue sharing, in lieu taxes, and engineering fees. Property-related expenditures include portions of general government costs, property protection, and planning. All financial transactions in the property category are considered annual operating revenues and expenditures.

3) Commercial-related revenues are derived from sales tax, room occupancy tax, alcohol, and business inventory tax. Obviously, there are property tax revenues derived from commercial enterprises, but at the time this study was conducted the assessment role did not disaggregate assessed value by land use; therefore, those revenues (and corresponding expenditures) are found in the property-related category. There were no expenditures related to the commercial category. For this study, we will assume that Verdi, California will not have any commercial development. It should be noted that since Proposition 13 and the cancellation of the California inventory tax, California and Nevada are approximately equal in their taxing standards on business. This means that there is no advantage to locating businesses in Nevada over California.

4) Agriculture revenues are derived from livestock and state funds, while expenditures are for the agriculture commissioner's and farm advisor's office. Once again, the property tax derived from agriculture could not be separated

from the tax role. Since this analysis in Verdi does not include agricultural lands, their fiscal impact will not be included in this analysis.

5) Federal lands contribute revenues to the county in the form of timber tax and various programs relating to public works and law enforcement. Likewise, the expenditures related to federal lands is for recreation-related law enforcement and public works. While Verdi, California, borders on vast federal forest and recreation areas, the study area does not. Thus federal land cost and revenues will not be included in our analysis.

6) Construction-related revenues from zoning and construction permit fees pay for the building inspector and that part of planning department costs that relate to new construction. Thus, while costs and revenues relating to construction are included in our analysis, the net fiscal impact to the county is zero.

7) Road costs and revenues are included as a separate category because operational and maintenance costs and highway user revenues are computed by the number of miles in the road system. Currently, Verdi, California, has only 1.15 miles of the 1,437 miles of roads maintained by the county (less than one tenth of 1 percent). Table 4 displays road-related operational costs and revenues. Since road revenues for existing county roads for operation and capital improvements meet 90 percent* of corresponding costs, we will not include cost estimates for the existing 1.15 miles of county road in this analysis.

* Annual Road Per Mile		Operating	Capital	Total	Percent
	Revenue	\$ 326.42	385.43	711.85	91%
	Cost	\$ 364.26	418.50	782.76	100%
	Net	\$ -37.84	-33.07	-70.92	-9%

TABLE 3

SIERRA COUNTY GOVERNMENT

PEOPLE AND PROPERTY-RELATED REVENUES AND EXPENDITURES 1978/79

NOTE: Detail of these cost and revenues is found in Appendix B

	<u>Revenues</u>	<u>Expenditures</u>
<u>People</u>		
<u>Revenues Per Person</u> ^{1/}		
Licenses, permits, fines, concessions	\$ 20.30	
Motor vehicle tax	13.24	
Welfare	* 140.65	
Other government: police, youth, revenue sharing	51.41	
Fee charges: election, court, misc.	<u>12.21</u>	
Total people revenues	\$ 237.81	
Less adjustment for non-Verdi service	* 140.65	
Total adj. people-related revenues	<u>97.16</u>	
<u>Expenditures Per Person</u> ^{1/}		
Administrative, elections, insurance		\$ 25.05
Judicial		59.64
Law enforcement		70.50
Welfare		* 140.68
Solid waste disposal		13.66
Education and misc. services		<u>8.87</u>
Total people expenditures		\$ 318.40
Less adjustment for non-Verdi service		* 140.68
Total adj. people-related expenditures		<u>177.72</u>
Net Difference Per Person		
Excess Expenditure = \$80.56		

PropertyRevenues Per \$100 of Assessed Value^{2/}

Property tax	\$ 1.98
Interest and in lieu taxes	.22
Revenue sharing	.18
Service charges and misc.	<u>.11</u>
Total property-related revenues	<u>\$ 2.49</u>

Expenditures Per \$100 of Assessed Value

Administrative, auditor, gen. govt.	\$ 1.05
Judicial, sheriff	.41
Building inspector - planning dept.	<u>.17</u>
Total property-related expenditures	<u>\$ 1.63</u>

Net Difference Per \$100 Assessed Value

Excess Revenues \$.86

^{1/}Population for Sierra County: 3,020.^{2/}Assessed Value for Sierra County: 25,011,000

*This analysis assumes no welfare costs for Verdi.

Education

Students in Verdi, California, are currently going to school in Verdi, Nevada. This is a temporary arrangement between the Sierra-Plumas Joint Unified School District and the Washoe County School District. Sierra County pays Washoe County for the student operating expenses. The net operational cost to the county at this time is near zero because the payments to Nevada are offset by California revenues from state aid, timber yield tax revenue and property tax.^{4/}

Since the impact from the growth projections increases the student population in Verdi, California by 4 to 15 times, and since the school in Verdi, Nevada, is at capacity, we will assume that California students will need a school of their own.

Operational Costs and Revenues

With the state legislature's passage of Assembly Bill 8, education revenues are now mandated to meet operational costs. These revenues are guaranteed by the state government. While a small portion of school revenues is still derived from property taxes, the state is acting as the guarantor of a basic revenue per student. In the past, school districts could raise and lower, within limits, their tax rates to augment state aid. With the passage of AB 8, the state set the revenue limit per student regardless of local property tax contribution. The per student payment to school districts from the state is adjusted annually for inflation.

^{4/}Forest Reserve funds are not counted in the Verdi study because these funds are not related to growth. Forest reserve funds are related to revenues generated from federal lands. These funds have historically varied between 25 and 45 percent of the school district budget.

Because the state guarantees revenues for students will be adjusted for inflation and paid by the state, we will assume that operating revenues will equal the operating expenditures.

Fire Prevention

Expenditures--Fire protection for the study area is provided primarily by the Verdi Volunteer Firemen's Association and back up protection from Nevada Division of Forestry in Boomtown (near Verdi). The cost of providing this service to the existing population is \$1,500 per year or \$27.78 per D.U. ($\$1,500 \div 54 = \27.78).

	<u>1979</u>
Operation and Maintenance: Verdi Volunteer	\$ 3,500
Division of Forestry	<u>19,000</u>
Total	\$22,500

Verdi, California, proportion of Service $6.6\% \frac{5}{6} = 1,500$.

Revenues--Sierra County pays the Verdi Volunteer Fire Department \$1,500 per year to protect the 54 houses in Verdi, California. The revenues for California fire protection come from contributions from Service Area #4. The donation from Service Area #4 to the Fire Department are raised from property taxes and casual donations from California residents. The property related portion of the revenues from Service Area #4 amounts to 4¢ per \$100 of assessed value, or \$650.^{6/} The remaining \$850 comes from casual donations from California residences amounting to an average of \$15.74 per house ($\$850 \div 54 = \15.74).

^{5/}6.6 percent represents the California portion of the entire Verdi community ($54 \text{ D.U.s} + 820 \text{ D.U.s} = 6.6\%$).

^{6/}The A/V of Verdi, California is \$1,621,000. $\$650 \div (1,621,000 \div 100 \text{ A/V}) = 4$ per \$100 A/V).

TABLE 4

FIRE PROTECTION 1978/79

Revenues	Revenues	Expenditures	Per \$100 of A/V	
			Revenues	Expenditures
A/V (\$1,621,000)	\$650		.04	
			Per Household	
Household (54)	\$850	1,500	\$15.74	\$27.78
Total	1,500	1,500		

We will assume that contributions from Service Area #4 will continue to be made to the Verdi Volunteer fire department. We will assume that donated revenues will continue to be generated either by the current casual method or with a more formal taxing arrangement, i.e., a homeowners association or the formation of a special tax assessment district.

Costs and Revenues of Maintaining Annual Government Service

The cost and revenue figures for the county, school, and fire protection agencies are summarized in Table 5.

TABLE 5

SUMMARY OF ANNUAL OPERATING FISCAL TRANSACTIONS
County, School, and Fire 1978/79

	<u>Operational Transactions</u>		
Sierra County Government	Revenue	Cost	Net Excess
	\$	\$	\$
Property - per \$100 A/V	2.49	1.63	+ .86
People - per person	97.16	177.72	- 80.56
<hr/>			
Schools - Sierra-Plumas Unified			
Student - per ADA	1,900	1,900	0
<hr/>			
Fire - Verdi Volunteer Fire			
Property - per \$100 A/V	.04	-	.04
Houses - per D.U.	\$15.74	\$27.78	- \$12.04

Governmental Capital Improvements to Serve Residential Growth

In order for governments to maintain their current level of service, major capital expenditures will be needed beyond those operational transactions mentioned in the previous section.

All estimates for expanding services are calculated using a facility's maximum capacity; therefore, this method of calculation represents an average estimate for the capital cost per unit, because facilities are always either under or overutilized. It is for this reason that estimates are based on maximum use.

It is assumed that the 500 acres of additional residential development will be built out in two to five years. In order to calculate the annual payment for a capital improvement, we will assume a bond or mortgage will finance the capital costs at 8 percent interest over a 20-year life. Further, we assume that after the 20-year payoff period, the facilities would either

need to be replaced or that the increase in maintenance costs would offset the annual payment. Thus each \$1,000 of government capital costs will result in a payment of \$101.85 annually (\$1,000 at 8 percent over a 20 year period). The 8 percent interest rate falls between a higher rate that would be paid by a developer financed loan (9 to 12 percent) and the lower rate of a tax exempt government bond (5 to 7 percent).

Sierra County - Capital Costs

Residential development would force the county government to expand the county jail, increase the office and counter space for an entire county staff, and conceivably accept additional roads into the county road system.

Roads

Capital costs for upgrading and replacing those roads in the existing 1,437 mile county road system are financed with forest reserve funds.^{7/} Verdi, California's share of the current road system is 1.15 miles. The new roads have no method of financing from the county's transportation plan.

Development in Verdi would generate the need for two types of roads:

1) minor collector streets to serve the development area and 2) those roads that serve each parcel. This study will assume that the county will accept the cost of Capital cost of minor collector roads. The estimated 2.7 miles of road would include Hill Lane and Trelease Lane on the northern and southern border and a new road to the west of and parallel to Hill Lane.

The cost of individual roads that serve each parcel will not be included in this study.^{8/}

^{7/} Based on the Sierra County Regional Transportation Plan, September 1978. This plan projects funding sources for a 20 year period for the existing county roads. No additional financing is available for new roads.

^{8/}Appendix E calculates their estimated miles and cost of roads to serve each parcel for the three alternatives tested.

Road Capital Expenditures

(in 1978 Dollar Value)

Annual Per Mile^{9/} Revenues and Expenditures

	<u>Existing Roads</u>	<u>New Roads</u>
Capital replacement		
Revenues: Forest Reserve Funds	\$385.43	\$ -
Expenditures: Construction and Replacement	\$418.50	\$418.50
Net Excess Annual Expenditure	- 33.07	-418.50

New roads for the three alternatives are estimated at \$1,130 annually (2.7 miles x \$418.50 = \$1,130).

Jail Facilities - Capital Costs

According to the Sheriff, the county jail facility, (four cells), is being used to capacity. In fact, prisoners being held on a long-term basis are being sent to Nevada County's larger jail. However, since this study assumes the same level of service for new residences, we will assume that the ratio of jail cells to D.U. in the county will remain at the over capacity level for new development.^{10/}

Jail Capital Costs

Sierra County Cells	4
Divided by D.U.'s in county	1,200
Cells per D.U.	.003333
Times cost per bed	\$45,000
Equals cost per D.U.	\$150
At 8% and 20-year payback	<u><u>-\$15.28</u></u>

^{9/}Sierra County has 1,437 miles in its existing road system; of this 1.15 is in Verdi, California.

^{10/}The California State Department of Correction estimates the 1978 cost of jail construction at \$45,000 per bed.

General Government - Capital Costs

As the county population grows, the office and counter space required for all county services will need to expand. At this time the county has no cost estimates for expanding general government facilities. However, based on government expansion cost to population service ratio : in Nevada County and an analysis of the asset to population ratio for eleven California counties, it is estimated that \$300 of county capital costs per d.u.^{11/} \$300 at 8 percent and a 20-year payback equals \$30,56 annually.

School - Capital Costs

Sierra Plumas School District will need a school on the California side of Verdi to serve the new students generated in the three growth alternatives. The school in Nevada, which is currently housing the California students, is near capacity. Therefore, a new school will be needed in California. Since Nevada schools are at capacity, these capital costs would occur for Nevada schools if students continued to commute to Nevada. To estimate the capital costs for new school facilities, the guidelines for standard square footage per student from the California State Department of Education and average construction cost for 1978 are used. The square foot guidelines also coincide with the rest of the Sierra-Plumas school facility to student ratio.

^{11/}The sample includes the eleven counties with a population of more than 3,000 and less than 40,000.

TABLE 6

ANNUAL STUDENT (ADA) CAPITAL COST PER DWELLING UNIT

<u>Grade</u>		<u>Capital Cost</u>	<u>Annual Cost</u>
K-8	Number of square feet per ADA = 60		
	Average construction value per sq. ft.	\$75 = \$4500	
	.346 ADA per D.U. =	<u>\$1557</u>	
	20-year payback at 8% interest annual payment =		\$158.58
9-12	Number of square feet per ADA = 80		
	Average construction value per sq. ft.	\$75 = \$6000	
	.154 ADA per D.U. =	<u>\$ 924</u>	
	20-year payback at 8% interest annual payment		\$ 94.11
K-12	Total Annual Capital Cost for Education	<u>\$2481</u>	<u>\$252.69</u>
Source: California State Department of Education			

Fire Protection - Capital Costs

In order to maintain the current level of fire protection for additional growth, it will be necessary for the Verdi Volunteer Fire Department to purchase additional equipment. We will assume that the current fire department assets to D.U. ratio will remain constant for the new D.U.s.

TABLE 7

VERDI VOLUNTEER FIRE DEPARTMENT--CAPITAL COSTS

\$ 261,000 Equipment Replacement Value
\$ 100,000 Structure and Land Value
<u>\$ 361,000 Total Replacement Value</u>
820 D.U.s Served (Verdi community)
<u>\$ 440 Capital Cost per D.U.</u>
<u>\$44.81 Annual Cost at 20-year period at 8%</u>

Source: Verdi Volunteer Fire Dept.

TABLE 8

SUMMARY OF CAPITAL COSTS ANNUAL PAYMENT PER D.U. OR MILE OF ROAD

Cost is Assumed to be Financed at 8% and 20-Year Payback Period

County Government - Cap.

Road cost per mile	418.50 x 2.7 mile = \$1130		
		Capital Cost Per D.U.	Payment @ 8% and 20 years Per D.U.
Jail Cost per D.U.	150		
Gen. Govt. per D.U.	<u>300</u>		
Total County Govt. Cost Per D.U.		\$450	\$45.84
School Capital Cost K-8 per D.U.		\$1,557	\$158.58
9-12 per D.U.		924	94.11
Fire Protection Capital Cost		440	44.81
Total Annual		<u>\$3,371</u>	<u>\$343.34</u>

Revenues for Capital Expansion

At this time there are no formal revenue sources to meet the capital requirements associated with residential growth. The following section discusses the six financing methods available and the advantages and disadvantages of each.

1. General Obligation Bond - for future projects have been eliminated due to Proposition 13. Local governments lost their authority to levy additional property taxes. Without this, future G.O. bonds cannot be levied.
2. Revenue Bonds - are appropriate for revenue-producing facilities such as water and sewer systems, airports, and hospitals. However, nonrevenue producing services such as fire districts, schools, and

county service would be unable to use revenue bonds.

3. Special Assessment Bonds - sold by counties, special districts and cities to finance public works projects like streets, sewers, storm drains, street lights, and sidewalks which benefit particular property assessments are levied on the basis of benefit (not property value) after a public hearing. Proposition 13 has little impact on special assessment bonds because special assessments are not taxes; they are liens imposed on property for special benefits.

One major impediment here is the provision for protest by property owners. If over half of them object to the assessment district, the special district or county will not impose assessments except in rare cases of public safety, health, and welfare. Another problem that already exists but would be exacerbated by an increased use of assessments - how to fairly determine the benefit derived (hence the assessment) from the public improvement.

4. Lease - Revenue Bonds - use operational revenues from county and special districts to lease facilities constructed by non-profit corporations or joint power authorities on behalf of an agency. Since Proposition 13 has greatly reduced operational revenues and thus make lease-revenue bonds unattractive.

5. Pay As You Go - methods are where developers provide, pay fees for, and/or dedicate land for parks, schools, streets, sewers, and other improvements. This approach may avoid debt financing entirely. The dollar cost to the developer is passed on to the property owner in the form of a higher purchase price and commercial debt payment. Under the pay-as-you-go method, present and past residents will pay for the facilities future residents will enjoy. In an inflationary period, the community also spends valuable present dollars instead of less valuable (because of inflation) future dollars.

6. Loans and Grants - from the state may be available primarily for school facilities. Legislation in Assembly Bill 8 earmarks excess revenues from the Gann Initiative to establish a revolving loan guarantee to expanding school districts. However, it is uncertain at this time whether excess revenues will be generated from the Gann Initiative or if that portion of AB 8 is constitutionally legal.

Appendix c discusses possible ways of restructuring current revenue methods.

PART THREE

Growth Alternative Analysis

The alternatives analyze the net government costs on a 500-acre tract with parcel sizes of 2.5 acres in alternative 1, 1 acre in alternative 2, and .56 acre in alternative 3. As indicated below, an additional population and assessed valuation would occur with development.

	Population	% Increase	A/V	% Increase
Alternative 1	460	(-)	3.936 m	(-)
Alternative 2	1,150	(150%) ^{12/}	3.900 m	(126%) ^{12/}
Alternative 3	2,070	(80 %) ^{13/}	14.913 m	(67 %) ^{13/}

It is of interest to note that the difference between alternative one and two indicates a population increase of 150 percent while the A/V increases only 126 percent. Similarly, the difference between alternative two and three indicates a population increase of 80 percent as compared to A/V increase of 67 percent. This is because the smaller the parcel, the lower the A/V per parcel. Since the population is the same per D.U. regardless of parcel size, the A/V population ratio deteriorates with smaller parcels.

^{12/}Percent increase in alternative 2 over alternative 1.

^{13/}Percent increase in alternative 3 over alternative 2.

The difference between population increase and A/V increase is of special significance in that people generate net government costs while A/V generates net revenue. Thus, the costs per person for alternative 2 exceed alternative 1, and costs for alternative 3 exceed alternative 2.

The Baseline

The baseline analysis represents the estimated government costs less revenues of the study area in 1979. The area's developed portion (126 acres) is separate from the undeveloped portion (3,223 acres). The upper portion of Table 10 ^{14/} indicates that developed property generates excess costs while the undeveloped property generates a net revenue. The cause for excess expenditure on the developed property is caused by people-related costs exceeding the revenues generated by people and property-related tax revenues. On the undeveloped properties the tax revenues exceed the costs because there are no people related costs. The developed portion on the other hand yields a net cost of \$2,755, or \$22.00 per person, because of people-related costs. All baseline analyses observe only operating costs and revenues, since present capital facilities are adequate for current service demands.

The combination of developed and undeveloped properties develops a net revenue in the study area of \$3,952 or \$32 per person.

^{14/} Appendix A is the source for figures displayed in Table 10.

Three Growth Alternatives

TABLE 9

ANNUAL COSTS FOR THREE GROWTH ALTERNATIVES--BY AGENCY

		Per Person			
		Baseline	Alt. 1	Alt. 2	Alt. 3
County Gov. - operational		\$ +32.00	\$ -7.00	\$ -14.00	\$ -18.50
	capital	0	-22.40	-20.90	-20.50
School - operational		0	0	0	0
	capital	0	-109.90	-109.90	-109.90
Fire - operational		0	- 1.80	- 2.10	- 2.40
Protection - capital		0	-19.50	-19.50	-19.50
Total Per Person $\frac{1}{-}$		\$ +32.00	-160.60	-166.40	-170.80

Taken from Table 10

1/May not add due to independent rounding

County government operational costs increase between alternatives one and two, and again between alternatives two and three because of the ever decreasing A/V to people ratio. However, county capital costs actually decrease per person because the road cost, a fixed amount for all three alternatives, is divided between an ever expanding population base.

School operational costs are guaranteed by the state (see page 16) and the capital costs are calculated on a per person basis and thus a per D.U. basis. Because school costs are calculated on a per D.U. basis, they remain the same in all three alternatives. School capital costs represent over 65 percent of the costs to government for new development.

Fire protection, operational costs per person increase with each alternative because a portion of the revenues come from property tax (district 4 revenues) and are subject to the same A/V to population ratio decrease that occurs with the smaller parcels. Fire capital costs are calculated on an annual per person basis, and thus remain constant for all three alternatives.

TABLE 10

Alternative Summary: By Agency
Annual Net Cost (Less Revenues) For Operational & Capital Costs
Per: Person and Acre

Baseline 1979	Net Cost (less revenue)	Per person (124 people)	Per Acre (126 Acres)
Developed - A/V = 876,000			
County Government-Operational	-\$2,455	-\$ 20	-\$ 19
-Capital			
School -Capital			
Fire -Operational	- 300	- 2	- 2
-Capital			
TOTAL Undeveloped	-\$2,755	-\$ 22	-\$ 21
Undeveloped A/V = \$745,000		N.A.	(3,223 acres)
County Government - Operational	+6,407		\$ 2
Fire Protect -Operational	+ 300		
TOTAL Undeveloped	+6,707		\$+ 2
GRAND TOTAL Baseline	+3,952	+ 32	+ 1
Alternative #1- <u>2.5</u> acre parcels - 200 d.u.'s - A/V \$3,936,000			
	(460 people)		(500 acres)
County Government -Operational	-\$3,208	- 7	- 6
-Capital	-10,298	- 22	- 21
School Capital Cost only	-50,538	- 110	- 101
Fire Protection -Operational	- 834	- 2	- 2
-Capital	- 8,962	- 20	- 18
GRAND TOTAL Alt. #1	\$-73,840	- 161	- 148
Alternative #2 - <u>1</u> acre parcel - 500 d.u.'s -A/V = \$8,900,000			
	(1,150 people)		(500 acres)
County Government -Operational	\$-16,104	\$- 14	\$- 32
-Capital	24,050	21	- 48
School - capital cost only	-126,345	- 110	- 253
Fire protection -Operational	- 2,460	- 2	- 5
-Capital	-22,405	- 20	- 45
GRAND TOTAL Alt. #2	\$-191,364	- 166	- 383
Alternative #3 .56 acre parcels - 900 d.u.'s A/V = \$14,913,000			
	(2,070 people)		(500 acres)
County Government -Operational	- 38,234	- 18	- 76
-Capital	- 42,386	- 20	- 85
School -Capital	-227,421	- 110	- 455
Fire Protection -Operational	- 4,871	- 2	- 10
-Capital	- 40,329	- 20	- 81
GRAND TOTAL Alt. #3	\$-353,241	- 171	- 706

Note: Columns may not add due to independent rounding.

Conclusion

Development causes costs to outstrip revenues for both government operational and capital costs. The operational costs exceed revenues for two reasons: 1) people-related costs exceed the revenues generated by people, and 2) undeveloped property generates revenues that pay for people related services. As more land is developed, the ratio of developed to undeveloped property is tipped toward the cost generating development. Capital requirements generated by growth compound the operating cost shortfall.

Reducing the level of development by zoning for larger parcel sizes partially mitigates the increased costs generated but does not come close to offsetting the development-related costs. The government agencies serving Verdi, California, can either decrease the level of service offered or, by increasing their revenues through pay-as-you-go fees, bonds, homeowners associations and state subvention grants; maintain current service levels.

APPENDIX A-1

Verdi, California
Baseline of the Study Area

Description	Baseline Undeveloped	Baseline Developed	Total
Number of Acres	3,223	126	3,349
Number of Parcels (BUILT)	65	54	54
Parcel size in Acres	50	23	
Population @ 2.3 per d.u.	-	124	124
Students K-8@ .346	-	19	19
9-12@ .154	-	8	8
TOTAL Students	-	27	27
A/V Per Parcel Land & Improvement (AVERAGE)	231(per acre)	16,222	(parcel)
TOTAL All Parcels (X 1,000)	745	876	1,621
<hr/>			
Government - Cost & Revenues			
County Government	(\$)	(\$)	(\$)
Property - Net per \$100 A/V = +.86	6,407	7,534	13,941
People - Net per person = 80.56	-	-9,989	-9,989
TOTAL operational	+6,407	-2,455	+3,952
Capital - Annual cost per d.u. = 45.84 ^{1/}	-		
Roads - per mile cost 42.63 ^{1/}			
TOTAL Capital cost	-	-	
Capital plus Operational TOTAL	+6,407	-2,455	+3,952
<hr/>			
Schools - Sierra, Plumas Unified - Capital ^{1/}			
K-8@ 158.88 per ADA Annually			
9-12@ 94.11 per ADA Annually			
School TOTAL	-	-	-
<hr/>			
Fire Protection			
Property - Net .04 per 100 A/V	300	+ 350	650
d.u. Net (27.78 less 15.74=) -12.04		- 650	-650
Operational Fire Total	+ 300	- 300	0
Capital Fire Cost @ 44.81 per d.u. ^{1/}	-	-	-
TOTAL Fire - Capital & Operational	+ 300	- 300	0
<hr/>			
Total All Governments - Operational			+3,952
" " - Capital			
GRAND TOTAL	+6,407	-2,755	+3,952
<hr/>			
Per person		- 22	+ 32
Per d.u.		- 51	+ 73
Per Acre	2	- 21	+ 1

^{1/}Capital expenditures calculated on an annual basis at 8 percent and 20 years payback

APPENDIX A-2

ALTERNATIVE #1 - 2.5 ACRES PER PARCEL ON 500 ACRES
OR 200 D.U.'s

Description	Alt #1 200 d.u.	Baseline developed	Baseline undeveloped	Alt + Baseline
Number of Acres	500	126	2,723	3,349
Number of Parcels (BUILT)	200	54	--	254
Parcel size in Acres	2.5	2.3		
Population @ 2.3 per d.u.	460	124		584
Students K-8@ .346	.69	19		88
9-12@ .154	31	8		39
TOTAL Students	100	27		127
A/V Per Parcel Land & Improvement (AVERAGE)	19,680	16,222		
TOTAL All Parcels (X 1,000)	3,936	876	231 (per acre) 629	5,441
<hr/>				
Government - Cost & Revenues				
County Government	(\$)	(\$)	(\$)	(\$)
Property - Net per \$100 A/V = +.86	+33,850	+7,534	+5,409	+46,793
People - Net per person = 80.56	-37,058	-9,989		-47,047
TOTAL operational	- 3,208	-2,455	+5,409	- 254
Capital - Annual cost per d.u. = 45.84 ^{1/}	- 9,168			- 9,168
Roads - per mile cost\$418.5	- 1,130			- 1,130
TOTAL capital cost	-10,298			-10,298
Capital plus Operational TOTAL	-13,506	-2,455	+5,402	-10,552
<hr/>				
Schools - Sierra, Plumas Unified-Capital ^{1/}				
K-8 @ 158.58 per d.u. Annually	-31,716	-8,563		-40,279
9-12 @ 94.11 " d.u. "	-18,822	-5,082		-23,904
School TOTAL	-50,538	-13,645		-64,183
<hr/>				
Fire Protection				
Property - Net .04 per 100 A/V	+1,574	+ 350	+ 251	+ 2,175
d.u. Net (27.78 less 15.74=) -12.04	-2,408	- 650		- 3,058
Operational Fire Total	- 834	- 300	+ 251	- 883
Capital Fire Cost @ \$44.81 per d.u. ^{1/}	-8,962	--	--	- 8,962
TOTAL Fire - Capital & Operational	-9,796	- 300	+ 251	- 9,845
<hr/>				
Total All Governments - Operational	- 4,042	-2,755	+ 5,660	- 1,137
" " - Capital	-69,798	-13,645		-83,443
GRAND TOTAL	-73,840	-16,400	+ 5,660	-84,580
<hr/>				
Per person	- 161.	- 132.		- 145.
Per d.u.	- 369.	- 304.		- 333.
Per Acre	- 148.	- 130.	2.	- 25.

^{1/}Capital expenditures calculated on an annual basis at 8 percent and 20 years payback

APPENDIX A-3

ALTERNATIVE #2 -- ONE ACRE PARCELS ON 500 ACRES
OR 500 D.U.'s

Description	Alt #2 500 du's	Baseline developed	Baseline undeveloped	TOTAL Alt + Baseline
Number of Acres	500	126	2,723	3,349
Number of Parcels	500	54	N.A.	524
Parcel Size in Acres	1.0	2.3	-	-
Population @ 2.3 per d.u.	1,150	124		1,274
Students K-8 @ .346	173	19		192
9-12 @ .154	77	8		85
TOTAL Students	250	27		277
A/V Per Parcel Land & Improvement (Average)	17,800	\$ 16,222	\$ 231(per acre)	
Total All Parcels (X 1000)	8,900	876	629	10,405
Government - Cost and Revenues	(\$)	(\$)	(\$)	(\$)
County Government				
Property - Net per 100 A/V = +.86	+76,540	+ 7,534	+ 5,409	+ 89,483
People - Net per person \$80.56	-92,644	- 9,989	-	-102,633
TOTAL Operational	-16,104	- 2,455	5,409	- 13,150
Capital - Annual Cost per d.u. 45.84 ^{1/}	-22,920	-	-	- 22,920
Roads-permile cost \$418.50	- 1,130	-	-	- 1,130
TOTAL Capital Cost	-24,050			- 24,050
Capital + Operation Costs	-40,154	- 2,455	+ 5,409	- 37,200
Schools Sierra Plumas Unified-Capital ^{1/}				
K-8 @ 158.58 per d.u. Annually	-79,290	- 8,563		- 87,853
9-12 @ 94.11 per d.u. Annually	-47,055	- 5,082		- 52,137
School TOTAL	-126,345	-13,645		-139,990
Fire Protection				
Property - Net .04 per 100 A/V	+ 3,560	+ 350	+ 251	+ 4,161
d.u. - Net (27.78 less 15.74=) -12.04	- 6,020	- 650		- 6,670
Operational Fire TOTAL	- 2,460	- 300	+ 251	- 2,509
Capital Fire Cost @ \$44.81 per d.u. ^{1/}	-22,405			-22,405
TOTAL Fire Capital & Operational	-24,865	- 300	+ 251	-24,914
Total All Government - Operational	-18,564	- 2,755	+ 5,660	15,659
" " - Capital	-172,800	-13,645		-186,445
GRAND TOTAL	-191,364	-16,400	+ 5,660	-202,104
Per Person	- 166 .	- 132.	-	- 159 .
Per D.U.	- 383 .	- 304.	-	- 386 .
Per Acre	- 383 .	- 130.	2.	- 60 .

^{1/}Capital expenditures calculated on an annual basis at 8 percent and 20 years payback.

APPENDIX A-4

ALTERNATIVE #3 - .56 ACRES PER PARCEL ON 500 ACRES
OR 900 D.U.'s

Description	Alt #3 900 d.u.	Baseline developed	Baseline undeveloped	Alt + Baseline
Number of Acres	500	126	2,723	3,347
Number of Parcels	900	54		954
Parcel Size in Acres	.56	2.3		
Population @ 2.3 per d.u.	2,070	124		2,194
Students K-8 @ .346	311	19		330
9-12 @ .154	139	8		147
TOTAL Students	450	27		477
A/V Per Parcel Land & Improvement (AVERAGE)	\$16,570	\$16,222	\$ 231 (per acre)	
Total All Parcels (X 1000)	\$14,913	\$ 876	\$ 629	16,418
<hr/>				
Government - Cost and Revenues	(\$)	(\$)	(\$)	(\$)
County Government				
Property - Net per \$100 A/V = +.86	+128,252	+ 7,534	+ 5,409	+
People - Net per person \$80.56	-166,759	- 9,989		-176,748
TOTAL Operational	- 38,234	- 2,455	+ 5,409	- 35,280
Capital-Annual Cost per d.u. \$45.84 ^{1/}	-41,256	-	-	- 41,256
Roads- per mile cost \$418.50	- 1,130			- 1,130
TOTAL Capital Cost	-42,386			- 42,386
Capital plus Operational Costs	- 80,620	- 2,455	+ 5,409	- 77,666
<hr/>				
Schools Sierra Plumas Unified (Capital) ^{1/}				
K-8 @ 158.58 per d.u. Annually	-142,722	- 8,563		- 151,285
9-12 @ 94.11 " d.u. "	- 84,699	- 5,082		- 89,781
School TOTAL	-227,421	-13,645		- 241,066
<hr/>				
Fire Protection				
Property - Net .04 per 100 A/V	+ 5,965	+ 350	+ 251	+ 6,566
d.u. - Net (27.78 less 15.74=) -12.04	-10,836	- 650		-11,486
Operational Fire Total	- 4,871	- 300	+ 251	- 4,920
Capital Fire Cost A \$42.81 per d.u. ^{1/}	-40,329	-	-	-40,329
TOTAL Fire Capital & Operational	-45,200	- 300	+ 251	-45,249
<hr/>				
Total All Governments - Operational	-43,105	- 2,755	+ 5,660	40,200
" " - Capital	-310,136	-13,645	-	-323,781
GRAND TOTAL	-353,241	-16,400	+ 5,660	-363,981
<hr/>				
Per person	\$ - 171	- 132		\$ -
Per D.U.	\$ - 392	- 304		\$ -
Per Acre	\$ - 706	- 130.	+ 2	\$ -

^{1/} Capital expenditures calculated on an annual basis at 8 percent and 20 years payback.

Population: 3,020

Assessed Value: 25,011,000

Description	1978-79 Revenues	People	Property	Commercial	Agriculture	Federal Land	New Construct	Roads
Property tax	461,108		100					
Sales tax	47,462			100				
Room occupancy	19,369			100				
Livestock	7,604				100			
Property transfer	12,877		100					
Construction permits	29,756						100	
Zoning permits	16,167						100	
Franchise & license & permits	6,268	100						
Vehicle & Court fines	28,975	100						
Interest & Rent Concessions	135,061	50	50					
Aid from other Gov. & State								
Alcoholic bev. license	7,371			100				
Highway users & snow storm	300,497							100
State motor vehicle license	34,163	100						
" Trailer	5,823	100						
Welfare - State	302,186	100						
Vet/Agriculture-Civil defense	8,581				100			
Homeowners exemption	23,506		100					
Business inventory	9,562			100				
Cigarette tax	3,295			100				
Open space - timber	204,666					100		
Juvenile Youth Authority	16,808	100						
Marine Patrol	8,753					100		
Litter & Misc. Fish Game	16,765					100		
Police & Justice Subvention	51,355	100						
Transportation Agency	8,000	100						
Federal: Welfare	134,666	100						
Forest Reserve	553,861							100
Revenue Sharing	91,595	50		50				
In Lieu Tax	42,462	50		50				

continued
next page

Sierra County 1978-79 Revenues - Percentage Allocation by Category

Population: 3,020

Assessed value: 25,011,000

Description	1978-79 Revenues	People	Property	Commercial	Agriculture	Federal Land	New Construct	Roads
Forest Patrol	39,207					100		
Forest Refuse Disposal	1,672					100		
Miscellaneous revenue	14,493	50		50				
Misc. Service-people-office	4,965	100						
Misc. Service-property	4,154		100					
People-civil-election-court-	13,552	100						
Property-Recording street/road	96,513		100					
Constr. Planning/evaluation	12,399			100				
Miscellaneous Revenue	22,235	50	50					
TOTAL	<u>2,797,752</u>							

Sierra County 1978-79 Expenditures - Percentage Allocation by Category

Population: 3,020

Assessed value: 25,011,000

	1978 - 79 Expenditure	People	Property	Commercial	Agriculture	Federal Lands	New Construct	Roads
General - legislative admin.	69,307	50	50					
Finance-assessor, auditor to elect	161,983		100					
Election	13,265	100						
Property mgmt./co-eng.	37,663		100					
Capital improvements	4,700					100		
Insurance, central serv.	55,498	50	50					
Judicial & county council	240,169	75	15			10		
Sheriff/coroner	440,398	30	10			60		
Detention/correction	44,422	100						
Building inspector	27,974		25				75	
Ag. Commissioner	13,067				100			
Miscellaneous protection	36,370	100						
Planning Department	71,504		45				55	
Public ways - roads-trans.	1,124,808							100
Health & Sanitation	186,926	100						
Solid Waste Disposal	48,246	100						
Welfare	237,913	100						
Vet Service & Senior Citiz.	6,054	100						
Education	15,785	100						
Library	4,950	100						
Farm Advisor	5,002				100			
TOTAL EXPENDITURE	<u>2,846,004</u>							

APPENDIX C-1

Four Additional Major Alternatives for Revenue Formation

Below are four additional major alternatives that should be evaluated. Any of them would enable local governments to secure the public improvements that they will need in coming years. They reinstate the capability to finance capital improvements that cities, counties, and special districts lost when Proposition 13 was approved.

Each of these would be a major change in California local government finance with numerous economic, social and political consequences. They should be investigated carefully and discussed fully by legislators, citizens, and interest groups. The alternatives are:

- Eliminate debt service from the Proposition 13 tax limitation.
- State loans or grants for the local capital costs of selected major public improvements.
- Split the assessment rolls, taxing residential property at 0 to 1 percent and other property at a higher rate.
- Authorize cities and counties to impose local income taxes as a surcharge on the State income tax and bank and corporation taxes.

Exempt Debt Service from 1 percent Limitation

The most straightforward solution is a constitutional amendment to exempt debt service from the 1 percent property tax limitation. This would reinstate local governments' ability to issue general obligation bonds. The amendment could convey this authority to cities, counties, and districts only upon a vote of the local electorate. It could be further limited to selected capital improvements, such as schools, parks, libraries, and municipal buildings which will be the most difficult to finance after Proposition 13.

Loans or Grants for Local Capital Improvements

As suggested earlier for school building financing, the State could provide the needed monies. The state could obtain the funds by selling State general obligation bonds or by redirecting some of the general fund. It could then make loans or grants to local governments for such uses as police and fire stations, parks, libraries, and municipal buildings. The State would have to determine the kinds of local facilities for which it would offer loans or grants. It would also have to decide what level of service State monies would support. Neither is a simple question. Further, the Serrano-related arguments that support this approach for school financing (equal education is a State concern) are less compelling here. Ideally, the local government should determine its own level of park, museum, police, and fire service. The Legislature would need to allow for as much local decision making as possible.

Split Assessment Rolls

This alternative, also requiring a constitutional amendment, would enable local governments to tax nonresidential property at a higher rate than residential property. It could increase local property tax revenues substantially.

Local Income Tax Surcharge

The income tax is generally accepted as the most equitable form of tax. It can be designed as a progressive tax, falling more heavily on the wealthy than on the poor. A local surcharge could raise substantial revenues and would be easy to administer. The State should authorize localities to impose, upon a vote of the local electors, a limited income tax surcharge to be collected with the State income taxes. This should provide enough revenue for

APPENDIX C-1

those communities who select it to support both ongoing expenditures and debt financing for capital improvements. There would be numerous issues to be considered -- Should the tax be imposed regionally instead of locally (to avoid islands of competitive advantage)? How could revenues be distributed among wealthy and impoverished communities (a la Serrano)? and would the tax revenues be subvented to the site of the taxpayer's residence or work?

F) 30 CENTS

Capital Crisis

California's Tax Revolt Slashes Local Spending By Blocking Bond Sales

Building, Improvements Lag
Due to Propositions 13, 4;
Looking for Loopholes

'Deader Than a Dodo Bird'

By STEPHEN J. SANSWEET

Staff Reporter of THE WALL STREET JOURNAL

The small town of Healdsburg, 70 miles north of San Francisco, needed to come up with \$620,000 for various electric and water projects and lighting improvements in the town ballpark. But in an era of Proposition 13 spending constraints, trying to persuade voters to pay for a bond issue was out of the question.

The town decided to raise the money without voter approval by selling lease revenue bonds. These bonds are sold by a nonprofit corporation that develops a project and then leases it to the municipality. The debt usually is serviced by revenues, such as those from a utility.

This year the town set up a nonprofit corporation and sold the bonds. "In the past we've used some general-obligation bonds and pay-as-you-go to a large extent, but Proposition 13 killed both of these," says Kurt Hahn, the town's finance director.

Throughout California, counties, cities and towns are desperately seeking new ways to finance much-needed capital improvements after the damage caused to their spending plans by Proposition 13 and by the approval this month of Proposition 4, which limits spending growth. For small projects, lease revenue bonds are one answer; but for the larger needs of building and maintaining schools, prisons, hospitals and municipal buildings, there doesn't seem to be any avenue of financing. There are problems even for those issues that can be sold. "Too many analysts and institutions view California as a bad place to buy bonds today," says Terrence E. Comerford, a senior vice president of Blyth Eastman Dillon.

Staggering Along

As a result, municipal financing, which almost came to a halt in the month following the passage of Proposition 13 in June 1978, has been staggering along for the past year, and future prospects are bleak. "Things will begin to wear out faster, and new construction to handle growth and orderly replacement of old facilities won't take place," warns Herman Zelles, senior vice president of Stone & Youngberg Municipal Financing Consultants. "The eventual day of reckoning will be that much worse.

Local capital improvements in California, which in fiscal 1977 were about \$1.7 billion, traditionally have been financed in a number of ways, including special taxes, grants and revenue sharing and on a pay-as-you-go basis. But various types of bonds always have had a major role in paying for long-term projects. Before the passage of Proposition 13, new California issues accounted for about 10% of the total U.S. municipal financing market. That figure has declined to about 2% to 3%.

The chief reason is "13," which limited property taxes to 1% of market value plus whatever is necessary to retire existing bonds. The taxes can't go up by more than 2% a year, and there isn't any provision for a tax override to pay for new bonds. Any special taxes have to be approved by two-thirds of the voters.

Proposition 4 has made the seal on spending that much tighter. Effective next July 1, it will limit state and local government spending to the level of fiscal 1979, adjusted for the consumer price index and the growth in population.

Is California a Precursor?

Municipal-financing people are casting a wary eye on the California experience as a precursor of problems elsewhere. "We haven't seen much in the way of trouble outside of California yet, but the potential is certainly there," one consultant says. Since "13," measures restricting taxation and government spending have passed in 12 states. Of these, only Idaho and Nevada have passed measures similar to Proposition 13, although the Nevada measure must be approved by voters again next year. Spending limitations similar to Proposition 4 have been approved in Arizona, Hawaii, Michigan, Texas and Washington.

So far, California hasn't experienced the economic collapse that was once predicted; that is because of multibillion-dollar bailouts by the state legislature. Now, moneymen are saying that as far as capital projects are concerned, the state will either have to make do with less or find new sources of revenue. But with the state facing a new vote, possibly next year, this time on a constitutional amendment that would cut income taxes in half, the sources of new revenues are looking increasingly thin.

Already "there have been lower expenditures for capital improvements and for maintenance," says Mr. Zelles, the financing consultant. The spending cutback has affected such capital improvements as parks, senior-citizen centers, and redevelopment and street projects, a state survey shows. In California schools alone last year, according to another state report, there was a backlog of more than \$740 million in maintenance work.

Robert E. Thomas, the administrator of Orange County, one of the fastest-growing metropolitan areas in the U.S., asks how the county ever again will be able to build another structure. "How can we, since we can't float bonds anymore?" he says, reflecting the gloom that pervades many local governments in California.

'Deader Than a Dodo'

The financing instruments that have been the most hurt by the California taxpayers' revolt are general-obligation bonds. Last

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year they accounted for 40% of the \$12.6 billion in local bonds outstanding in the state. These bonds "are deadlier than a dodo bird," says John Fitzgerald, a vice president of Merrill Lynch White Weld Capital Markets Group.

General-obligation bonds, which require voter approval, are secured by the ability of local government to levy an unlimited property tax as collateral. Because of the security this provides, the bonds have generally attracted the most investors. And because they usually have the lowest interest rates, the issuer receives substantial savings.

But Mr. Fitzgerald points out that "while most states require only a majority vote for general-obligation bonds, California has long required a two-thirds vote." Thus, voters began rejecting these issues in the 1960s, and "Proposition 13 was the coup de grace," he says. This is particularly unfortunate, financial experts say, because the bonds have been vital in paying for new schools and public buildings, which aren't capable of generating their own revenues.

Most analysts are convinced that it will be impossible to continue for too long without general-obligation bond financing. There is a move afoot to place a constitutional amendment on the ballot that would restore the use of the bonds. It would permit a tax rate above the 1% limit to pay debt service on bonds approved by two-thirds of voters. There's also talk of state grants or guarantees for local bond debt service.

Another type of financing that has been dealt a near death blow is the tax-allocation bond, which is used by local redevelopment agencies. Before June 1978, about 74 California agencies had marketed tax-allocation bonds with a par value of \$1.1 billion. Nearly a third of that amount had been rushed to market in the first half of 1978 to beat the June election.

The money raised by these bonds is used to buy, clear and prepare usually blighted areas for private development. The growth in assessed value produces higher property taxes, which are used to pay off the bonds. Because "13" doesn't allow increases in property taxes to retire existing tax-allocation bonds, a total of \$79 million in the bonds covering 13 redevelopment-agency projects in California is in danger of going into default before the end of fiscal 1983, according to Richard M. Gerwitz, an analyst for Merrill Lynch, Pierce, Fenner & Smith.

Capital Crisis: California Tax Revolt Slashes Spending by Blocking Bonds

THE WALL STREET JOURNAL.
Tuesday, Nov. 27, 1979

"Agencies will be hard-pressed to generate new construction while operating under the constraints imposed by lower revenue and spending levels," says Mr. Gerwitz. "Proposition 4 pretty much rules out new tax-allocation bonds since future debt service would be subject to a spending limitation or ceiling." And because rating agencies won't rate new tax-allocation bonds, "we won't underwrite them, and the market has practically disappeared," he says.

For a while, special-assessment bonds also were in doubt. These issues are used to finance usually small projects, such as sewer extensions, street lighting and sidewalks, that directly benefit one group of homeowners. The bonds are paid off by assessing the homeowners involved, but this was challenged in court as a "special tax" covered by "13." Projects were delayed up to a year by the legal uncertainty, but a recent court decision denied the challenge.

Mr. Fitzgerald of Merrill Lynch White Weld notes that assessment district bonds were popular in the 1930s and 1940s "and I think we'll see them used to a great extent again for such things as parks and water projects as other avenues of finance are closed," he says. "One thing Proposition 13 didn't do was eliminate the demand for these kinds of facilities."

Revenue bonds, which require majority voter approval, have been affected the least by Proposition 13, but there is some concern that they will have rough going as a result of Proposition 4. The bonds are backed by proven revenue sources, such as user fees and charges, and frequently are used by parking authorities and water districts. But their ultimate security usually is the total general fund of a municipality, the growth of which will be limited by Proposition 4.

That is why more municipalities are looking at lease revenue bonds, the nonprofit-corporation issue that was used to raise money by the town of Healdsburg. But there has been criticism that bonds that don't require voter approval are, at the least, in violation of the spirit of "13." A bill was introduced in the state legislature to ban any kind of financing without a popular vote. It didn't pass, but it probably will be introduced again.

Others wonder just how secure the issues are. "Since the lease payments are ultimately backed by the general funds of the city, we've got to take a closer look at the spending limits and make sure that future payments can be made," says Mr. Zelles of Stone & Youngberg.

"There's some feeling in the bond com-

munity that lease revenue bonds are a kind of back-door financing," says H. Kent Schmidt of the municipal-bond division of Security Pacific National Bank. "It's the easiest way to go since voter approval isn't needed, but it isn't viewed as municipal debt under law. If push comes to shove in the future, who's to say that some judge might not rule that limited revenues should go first to funding pension liabilities instead of making lease payments?"

But Robert L. Citron, tax collector-treasurer of Orange County, defends the use of the bonds. "We aren't building Taj Mahals with that money, we're building new prisons and county offices and providing other services that the public needs and is demanding," he says. "The only way you're going

to get people to vote approval of bonds is to prove you aren't crying wolf, and that will take some doing."

School districts depended heavily on lease revenue bonds before Proposition 13, but that use now is forbidden. And the Los Angeles City Council has voted down a proposal to improve its aging central library by using a nonprofit corporation.

"We've cut our total capital expenditures by 30% and scheduled equipment purchases by nearly 50%," says Robert E. Chase, acting Los Angeles administrative officer. "General funds are so scarce that we can't use pay-as-you-go financing. But cuts like we've had can only last for a limited time before there's a drastic impact on the city's operations."

Appendix D

SALE VALUE TO ASSESSED VALUE RATIO FOR PROPERTY TAX = .69907*

Sale Price Year	Assessed Value ^{1/} Decrease at 6%	Assumed Home Sale Every 7th Year ^{2/} Random	Assumed Home Sale Every 5th Year ^{2/} Random
0	\$ 1.000 x	.0009 = .00090	.0067 = .00670
1	.940	.0064	.00602
2	.884	.0223	.01971
3	.831	.0521	.04330
4	.781	.0912	.07123
5	.734	.1277	.09373
6	.690	.1490	.10281
7	.648	.1490	.09655
8	.610	.1304	.07954
9	.573	.1014	.05810
10	.539	.0710	.03827
11	.506	.0452	.02287
12	.476	.0264	.01257
13	.447	.0142	.00635
14	.421	.0072	.00303
15	.395	.0033	.00130
16	.372	.0014	.00052
17	.349	.0006	.00021
18	.328	.0002	.00007
19	.309	.0001	.00003
Total 20		1.0000	.65711 Assessed Value for Tax

$$\begin{array}{r}
 .65711 \\
 .74103 \\
 \hline
 - 2 = .69907
 \end{array}$$

^{1/}Decrease at 8 percent inflation plus 2 percent increase for Proposition 13 annual increase. Net 6 percent annual decrease in assessed value per year.

^{2/}Poisson distribution function: $e^{-m} M^x / X !$

APPENDIX E-1

ROAD COSTS ASSOCIATED WITH GROWTH IN VERDI, CALIFORNIA

This study assumes that Sierra County would accept 2.7 miles of new minor collector roads that surround the study area. The costs associated with the 2.7 miles is summarized below:

Miles of new road	2.7 miles
Annual capital cost per mile	\$ 418.00
Total annual capital cost	\$1,130.00

Alternative 1 would have 6.25 miles of roads with a cost of \$2,600 annually. The development would serve 200 parcels of 2.5 acres each. If the county were to accept the roads, the costs would be calculated as follows:

Sq. ft. per acre 43,560 x 2.5 acre parcel = 108,900 sq. ft. per parcel.

Square root of 108,900 = 330 liner feet per side.

Two parcels can share a road on one side; thus $330 \div 2 = 165$ ft.

165 ft. x 200 parcels = 33,000 ft. $\div 5,280$ ft. per mil = 6.25 mi.

6.25 miles x 418.50* = \$2,616 annual road cost.

Alternative 2 would have 9.9 miles of road with a cost of \$4,140 annually.

The development would serve 500 parcels of 1 acre each. If the county were to accept the roads, the costs would be calculated as follows:

Sq. ft. per acre 43,560 x 1.0 = 43,560 sq. ft. per parcel.

Square root of 43,560 = 209 liner feet per side.

Two parcels share a road on one side; thus $209 \div 2 = 104.5$.

104.5 lin ft. x 500 parcels = 52,250 - 5,280 per mi. = 9.9 mi.

9.9 miles x 418.50 = \$4,140 annual road cost.

*See Page 22 for new road costs. Does not include intersections, signs, and driveways.

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Alternative 3 would have 13.3 miles of road with a cost of \$5,560 annually. The development would serve 900 parcels of .56 acres each. If the county were to accept the roads, the cost would be as follows:

Sq. ft. per acre $43,560 \times .56$ ac parcel = 24,200 sq. ft. per parcel.

Sq. root of 24,2000 = 156 liner ft. per side.

Two parcels share a road on one side; thus, $156 \div 2 = 78$ ft.

$78 \text{ ft.} \times 900 \text{ parcels} = 70,200 \text{ ft.} \div 5,280 \text{ ft. per mi.} = 13.3.$

$13.3 \text{ miles} \times \$418.50 = \$5,560$ annual road cost.

APPENDIX F

The following is an outline description on the method used to develop this cost-revenue analysis.

I. Information gathering

A. Community characteristics

1. Population, adult and student, per DU
Source: Special Census, 1975

2. A/V of new units
Source: Assessor, and developers.

B. Budget analysis: revenues and expenditures

1. County

- a. Categorize revenues and expenditures into property or people-related functions (see Appendix B).
- b. Divide the total people-related revenues and expenditures by the population of the agency served and the property-related revenues and expenditures by the A/V base for the agency served (see Table 3).

2. Schools

C. Marginal costs not included in agency budgets

1. School costs

- a. Determine need for additional facilities
- b. Construction costs per ADA (as per Table 6)
- c. Loan period and payback rate (as per Table 6)

Note: Marginal costing can be done for selected subagencies if specific capital costs and revenue allocations can be broken out of budgets.

II. Application

- A. Organize the community characteristics by A/V, population, and ADA (see Table 2)

- B. Organize average costs and revenues by property & people (see Tables 3 & 5)

- C. Add marginal costs for school construction (see Table 8).
- D. Run computations (see Appendix A).
- E. Evaluate for consistency and reasonableness.

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